WHAT IS CLAIMED IS:

1. A thermodynamically stable material comprising:

(A) a cross-linked siloxane comprising:

alkoxysilyl functionality, $-X-SiR^4_n(OR^5)_{3-n}$, and

cross-links, $-E^1-Y-E^2-$, with each end of such cross-links bonded to a silicon,

wherein,

X is a divalent group that is a hydrocarbon, a siloxane or some combination of these,

R^4 and R^5 are independently monovalent hydrocarbon groups,

E^1 and E^2 are independently $-CH_2CH_2-$ or -CH=CH-,

Y is a divalent group that is a hydrocarbon, a siloxane or some combination of these and n is 0 to 2;

and

(B) a diluent.

2. The material of claim 1 wherein:

(A) is a cross-linked siloxane comprising:

alkoxysilyl functionality, $-X-SiR^4_n(OR^5)_{3-n}$, and

cross-links, $-E^1-Y-E^2-$, with each end of such cross-links bonded to a silicon,

wherein,

X is a divalent hydrocarbon group having from 2 to 12 carbons,

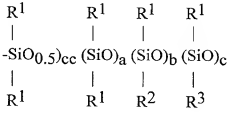
R^4 and R^5 are independently monovalent hydrocarbon groups having from 1 to 30 carbons,

E^1 and E^2 are $-CH_2CH_2-$,

Y is a divalent hydrocarbon group having from 1 to 30 carbons or a siloxane and n is 0 to 2.

3. The material of claim 1 wherein:

(A) is a cross-linked alkoxysilyl functional siloxane of average formula:



where,

R^1 is a monovalent hydrocarbon group;

R^2 is $-(CH_2)_dSiR^4_n(OR^5)_{3-n}$;

R^3 is $-E^1$-Y-E^2-R^9 or a siloxane containing $-E^1$-Y-E^2-R^9 with E^1 in this last mentioned siloxane bonded to silicon as well as to Y,

R^4 and R^5 are independently monovalent hydrocarbon groups;

E^1 and E^2 are independently $-CH_2CH_2-$ or -CH=CH- ;

Y is a divalent group that is a hydrocarbon, a siloxane or some combination of these;

R^9 is 

a is 0 – 100,000,000;

b is 1 – 50,000,000;

c is 1 – 10,000,000;

4<= cc<=2c+2;

d is 2 - 12;

n is 0 - 2.

4. The material of claim 3 where,

in (A):

R^1 is a monovalent hydrocarbon group having 1 to 12 carbons,

R^3 is $-E^1-Y-E^2-R^9$,

R^4 is a monovalent hydrocarbon group having 1 to 12 carbons,

R^5 is methyl, ethyl, isopropyl, phenyl or benzyl,

E^1 and E^2 are $-CH_2CH_2-$, and

Y is a divalent hydrocarbon group having from 1 to 30 carbons; and

(B) is a siloxane other than that chosen for (A) or a mixture of siloxanes not containing that chosen for (A).

5. The material of claim 3 where the weight ratio of (A):(B) is from1:100 to10:1.

6. The material of claim 3 where in (A),

R^3 is $-E^1-Y-E^2-R^9$,

Y is

$$\begin{array}{c} R^{10} \quad R^{10} \quad R^{10} \\ | \quad\quad | \quad\quad | \\ -Si-O-(SiO)_p-Si- \\ | \quad\quad | \quad\quad | \\ R^{10} \quad R^{10} \quad R^{10} \end{array},$$

R^{10} is a monovalent hydrocarbon group and

p is 0 to 20,000.

7. The material of claim 6 where

in (A):

R^1 is methyl,

R^4 and R^5 are independently monovalent hydrocarbon groups having from 1 to 30 carbons,

E^1 and E^2 are $-CH_2CH_2-$ and

R^{10} is methyl.

8. The material of claim 1 wherein

(A) is a cross-linked alkoxysilyl functional siloxane of average formula:

$$
\begin{array}{ccc}
R^{11} & & R^{11} \\
| & & | \\
(R^{11}\text{-}SiO_{0.5})_{qj} & (Q)_{rj} & (R^{11}\text{-}SiO_{0.5})_{tj} \\
| & & | \\
R^{42} & & R^{13}
\end{array}
$$

where,

R^{11} is a monovalent hydrocarbon group;

R^{42} is a monovalent hydrocarbon group or $-(CH_2)_dSiR^4{}_n(OR^5)_{3-n}$, with the proviso that R^{42} is at least in part $-(CH_2)_dSiR^4{}_n(OR^5)_{3-n}$;

R^{13} is $-E^1-R^{16}-Y-R^{17}-E^2-R^{19}$, or a siloxane containing $-E^1-R^{16}-Y-R^{17}-E^2-R^{19}$ with E^1 in this last mentioned siloxane bonded to silicon and R^{16};

Q is on average at least 80 mole percent (SiO_2) with the balance made up of one or more other types of siloxane units;

R^4 and R^5 are independently monovalent hydrocarbon groups;

E^1 and E^2 are independently $-CH_2CH_2-$ or $-CH=CH-$;

$R^{16}$and R^{17} are independently divalent hydrocarbon groups or nullities;

Y is a divalent group that is a hydrocarbon, a siloxane or a combination of these

R^{19} is

$$
\begin{array}{c}
R^{11} \\
| \\
(R^{11}\text{-}SiO_{0.5}) \\
|
\end{array}
$$

j is 1 to 100;

q is 1 to 500,000;

r is 1 to 1,000,000;

t is 1 to 100,000;

d is 2 to12; and

n is 0 to 2, with the proviso that

q+t : r is 0.5 to 4.0.

9. The material of claim 8 where in (A):

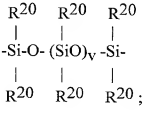
R^{11} is a monovalent hydrocarbon group having from 1 to 40 carbons;

R^{13} is $-E^1-R^{16}-Y-R^{17}-E^2-R^{19}$;

R^4 and R^5 are independently monovalent hydrocarbon groups having from 1 to 30 carbons;

R^{16} and R^{17} are independently divalent hydrocarbons groups having from 1 to 8 carbons or a nullity;

Y is

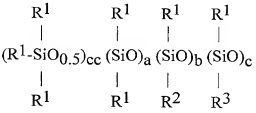


R^{20} is a monovalent hydrocarbon group having from 1 to 40 carbons; and

v is 0 to 20,000.

10. The material of claim 1 wherein:

(A) is a cross-linked alkoxysilyl functional siloxane comprising subunits of formula:



where,

R^1 is a monovalent hydrocarbon group;

R^2 is $-(CH_2)_dSiR^4_n(OR^5)_{3-n}$;

R^3 is $-E^1$-Y-E^2-R^9 or a siloxane containing $-E^1$-Y-E^2-R^9 with E^1 in this last mentioned siloxane bonded to silicon as well as to Y,

R^4 and R^5 are independently monovalent hydrocarbon groups;

E^1 and E^2 are independently $-CH_2CH_2-$ or -CH=CH- ;

Y is a divalent group that is a hydrocarbon, a siloxane or some combination of these;

R^9 is 

a is 0 – 1,000;

b is 1 – 500;

c is 1 – 100;

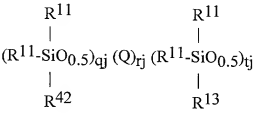
4<= cc<= 2c+2;

d is 2 - 12;

n is 0 - 2.

11. The material of claim 1 wherein

(A) is a cross-linked alkoxysilyl functional siloxane comprising subunits of formula:



where,

R^{11} is a monovalent hydrocarbon group;

R^{42} is a monovalent hydrocarbon group or $-(CH_2)_dSiR^4{}_n(OR^5)_{3-n}$, with the proviso that R^{42} is at least in part $-(CH_2)_dSiR^4{}_n(OR^5)_{3-n}$;

R^{13} is $-E^1-R^{16}-Y-R^{17}-E^2-R^{19}$, or a siloxane containing $-E^1-R^{16}-Y-R^{17}-E^2-R^{19}$ with E^1 in this last mentioned siloxane bonded to silicon and R^{16};

Q is on average at least 80 mole percent (SiO_2) with the balance made up of one or more other types of siloxane units;

R^4 and R^5 are independently monovalent hydrocarbon groups;

E^1 and E^2 are independently $-CH_2CH_2-$ or -CH=CH-;

$R^{16}$and R^{17} are independently divalent hydrocarbon groups or nullities;

Y is a divalent group that is a hydrocarbon, a siloxane or a combination of these

R^{19} is

j is 1 to 100;

q is 1 to 500;

r is 1 to 1000;

t is 1 to 100;

d is 2 to12; and

n is 0 to 2, with the proviso that

q+t : r is 0.5 to 4.0.

12. A method of making a thermodynamically stable material, the method comprising cross-linking, in the presence of a hydrosilylation catalyst,

(1) an ≡SiH functional siloxane and,

(2) an alpha, omega diene, diyne or ene-yne.

with the provisos

that at least one of (1) and (2) has alkoxysilyl functionality, $-X-SiR^4_n(OR^5)_{3-n}$,

where,

X is a divalent group that is a hydrocarbon a siloxane or some combination of these,

R^4 and R^5 are independently monovalent hydrocarbon groups and

n is 0 to 2,

that (1) and (2) are dispersed in a diluent, and

that the weight ratio of (1)+(2)+ the product of the cross-linking of (1) and (2):diluent is 1:100 to 10:1.

13. The method of clam 12 wherein

(1) is an ≡SiH functional siloxane having alkoxysilyl functionality of the form,

$-X-SiR^4_n(OR^5)_{3-n}$, where,

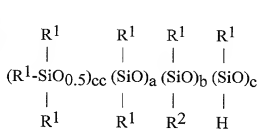
X is a divalent group that is a hydrocarbon, a siloxane or some combination of these,

R^4 and R^5 are independently monovalent hydrocarbon groups and

n is 0 to 2.

14. The method of claim 13 where,

(1) is an alkoxysilyl functional siloxane of average formula:



where,

R^1 is a monovalent hydrocarbon group;

R^2 is $-(CH_2)_dSiR^4_n(OR^5)_{3-n}$;

R^4 and R^5 are independently monovalent hydrocarbon groups;

a is 0 – 1,000;

b is 1 – 500;

c is 1 – 100;

$2 <= cc <= 2c+2$;

d is 2 - 12; and

n is 0 – 2;

(2) is E^3-Y-E^4 or a siloxane containing E^3-Y-E^4, where

E^3 and E^4 are independently CH_2=CH- or CH≡C-; and

Y is a multivalent group that is a hydrocarbon, a siloxane or some combination of these.

15. The method of claim 13, wherein,

(1) is on average

$[(CH_3)_3SiO_{0.5}]_i[(CH_3)_2HSiO]_u[(CH_3)_2SiO]_c[(CH_3)HSiO]_d[(CH_3)R^2SiO]_k[(CH_3)_2R^2SiO_{0.5}]_m$;

R^2 is $-(CH_2)_pSiR^4_n(OR^5)_{3-n}$;

R^4 and R^5 are independently monovalent hydrocarbon groups;

i is 0 to 2;

u is 0 to 2;

i+u+m = 2;

c is 0 to 20,000;

d is 0 to 2000;

u+d >= 2;

k is 0 to 2000;

m is 0 to 2;

k+m >=1;

p is 2 to 12;

n is 0 to 2; and

(2) is on average

$[(CH_2=CH)(CH_3)_2SiO_{0.5}]_e[(CH_3)_3SiO_{0.5}]_f[(CH_3)_2SiO]_g[(CH_2=CH)(CH_3)SiO]_h$;

e is 0 to 2;

f is 0 to 2;

e+f = 2;

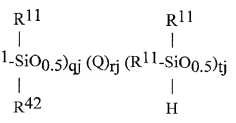
g is 0 to 20,000;

h is 0 to 1000; and

e+h >=2

16. The method of claim 13, wherein,

(1) is on average



where,

R^{11} is a monovalent hydrocarbon group;

R^{42} is a monovalent hydrocarbon group or $-(CH_2)_dSiR^4_n(OR^5)_{3-n}$, with the proviso that R^{42} is at least in part $-(CH_2)_dSiR^4_n(OR^5)_{3-n}$;

Q is on average at least 80 mole percent (SiO_2) with the balance made up of one or more other types of siloxane units;

R^4 and R^5 are independently monovalent hydrocarbon groups;

j is 1 to 100;

q is 1 to 500;

r is 1 to 1000;

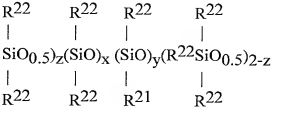
t is 1 to 100;

d is 2 to12;

n is 0 to 2;

q+t : r is 0.5 to 4.; and

(2) is on average



where x is 0 to 20,000,

y is 0 to 2000,

z is 0 to 2,

$2<=z+y<=2000$,

R^{21} is a monovalent terminally aliphatic unsaturated hydrocarbon having from two to twelve carbons, and

R^{22} is a monovalent hydrocarbon having one to forty carbons.

17. The method of claim 12, wherein

(1) is an ≡Si-H functional polyorganosiloxane and
(2) is a polyorganosiloxane resin having alpha-omega diene, diyne or ene-yne functionality.

18. The method of claim 17 wherein at least 80 mole percent of subunits in the polyorganosiloxane resin of (2) are (SiO_2) and (($(R^i)_3SiO_{0.5}$), where R^i is a monovalent hydrocarbon group, the ratio in (2) of siloxane units other than SiO_2 to SiO_2 units there is 0.5 to 4.0, and X in the alkoxysilyl functionality is a hydrocarbon.

19. A material preparable by the method of claim 12.

20. The product of the method of claim 12.

21. The product of the method of claim 13.

22. The product of the method of claim 14.

23. The product of the method of claim 15.

24. The product of the method of claim 16.

25. The product of the method of claim 17.

26. The product of the method of claim 18.

27. A material, comprising the composition of claim 1, that is a personal care product.

28. The material of claim 27 that is a hair, skin or underarm care product.

29. The material of claim 28 that is a conditioner, moisturizer, body wash, cosmetic foundation, blush, lipstick, eye liner, mascara, eye shadow, antiperspirant or deodorant.